

REMARKS

Amendments to the Specification

The specification has been amended to correct informalities in Markush group nomenclature at page 6, paragraph beginning on line 16; page 10, paragraphs beginning on line 1 and line 18; and page 11 paragraph beginning on line 12. No new matter has been introduced.

Amendments to the Claims

Independent claims 1, 11 and 19 have been amended without prejudice to recite preferred embodiments of applicants' invention whose metes and bounds are more definite and whose subject matter is more clearly distinguished over the prior art.

Support for amended claim 1, 11, and 19 is provided in the specification at page 9, lines 20-24; page 12, lines 1-3; page 4, lines 11-15; page 8, lines 1-3; page 12, lines 25-31; page 4, lines 20-26; page 6, lines 7-9; page 7, lines 28-30; page 5, line 23 to page 6, line 2; page 3, lines 19-28

Claims 4, 5, 7-9, and 14-16 have been amended without prejudice to make their metes and bounds more definite and to correct informalities in Markush group nomenclature.

New claims 20 and 21 have been introduced to recite preferred enzymatic oxidation systems. Support is provided on page 10, lines 1-19.

The Present Invention

The present invention is directed to an instant frozen aerated confection. Applicants have developed a base composition which can be conveniently aerated to form a stable gas dispersion which can yield a frozen confection. Applicants utilize in the base composition a ferulylated polymer in essentially unoxidized form combined with a nascent enzymatic oxidation system (essentially inactive in the base composition). This base composition is subsequently combined with an enzyme activator which initiates oxidation and is aerated. Applicants surprisingly found that only when aeration (incorporation of dispersed gas) takes place while the ferulylated polymer is being oxidized does the foam both readily form and become highly stable, thus allowing the instant frozen aerated confection to be formed.

Claims Rejection – 35 USC § 112

Claim 1-19 were rejected under 35 USC §112 second paragraph as being indefinite.

Claims 1-10 have been amended to recite positive and active method steps that more clearly point out and positively claim what applicants' regard as their invention.

Claims 5, 8-9, 15-16, and 18 have been amended to correct informalities in Markush group nomenclature, units and other potential sources of ambiguity.

Claims 8 and 15 have been amended and new claims 20 and 21 introduced to more clearly and unambiguously recite preferred enzymatic oxidation systems.

Applicants submit that their amended claims meet the standards required by §112 second paragraph and respectfully request the 112 rejection of claims 1-19 be reconsidered and withdrawn.

Claim Rejections - 35 USC § 102

Claims 1-18 were rejected under 35 USC § 102 (b) as being anticipated by or in the alternative, under 35 USC § 103 (a) as obvious over Sondergaard et al (WO 00/400098). Applicants respectfully submit that their claims are not anticipated by Sondergaard et al because Sondergaard et al does not disclose in a single reference all the elements and limitations recited in applicants' claims. Applicants further submit that a person of ordinary skill in the art having read Sondergaard et al would not have been motivated to modify Sondergaard et al in a way that would have lead to applicants' claimed invention.

Sondergaard et al is directed to pectin compositions that function as fat replacers and emulsifiers. The pectin composition comprises at least a population of pectin which is covalently cross linked. In one embodiment the pectin composition comprises pectin that may be crosslinked through feroyl groups (page 11, lines 24-25) employing for example enzyme oxidants.

Sondergaard et al discloses a process for preparing a food stuff comprising incorporating in the food stuff a pectin composition wherein the pectin composition

comprises at least a population of pectin which is covalently cross linked. Thus, the material (pectin composition) which Sondergaard et al discloses as being incorporated in a food stuff is a pectin which is already cross linked before the food stuff is formed.

The above interpretation is supported by all the examples disclosed by Sondergaard et al. The preparation of the cross linked pectin composition used in all the examples is described on Page 16, line 29 to page 17, line 8. In particular, the pectin composition product (after oxidation) was dried and ground to an average particle size of 250 μm and then incorporated in foodstuffs (see page 22). Thus, the pectin composition incorporated in ice creams (examples 1 and 2) made according to Sondergaard et al was already cross-linked before the ice cream was prepared.

Sondergaard et al is silent about a process for making of a frozen confection that involves starting with a base composition comprising ferulylated polymer having at most 15% oxidized ferulic acid groups and an inactive enzyme oxidation system, triggering oxidation with an activator and while oxidation is taking place, incorporating gas to yield a confection composition having an overrun of from 50% to 300%.

Sondergaard et al is silent about a base composition for a frozen aerated confection comprising ferulylated polymer having at most 15% oxidized ferulic acid groups and an inactive enzyme oxidation system (an enzyme system that converts less than 5% of the ferulic acid residues converted to diferulic acid after one week at ambient temperature).

Finally, Sondergaard et al is silent about any base compositions for frozen confection contained in an aerosol can with a propellant gas under pressure in general and the composition recited in claim 19 in particular.

In contrast, applicants' process for making an aerated frozen confection recited in claim 1 requires starting with a base composition comprising ferulylated polymer having at most 15% oxidized ferulic acid groups and an inactive enzyme oxidation system (one that converts less than 5% of the ferulic acid residues converted to diferulic acid after one week at ambient temperature), triggering oxidation with an activator and while oxidation is taking place, incorporating gas to yield a confection composition having an overrun of from 50% to 300%.

In contrast to Sondergaard et al, applicants base composition for a frozen aerated confection recited in claim 11 requires a ferulylated polymer having at most 15% oxidized ferulic acid groups and a nascent enzyme oxidation system (an enzyme system that converts less than 5% of the ferulic acid residues converted to diferulic acid after one week at ambient temperature).

In contrast to Sondergaard et al, applicants claim 19 recites an aerosol can requiring a propellant gas under pressure in addition to the substantially non-oxidized ferulylated polymer and nascent enzymatic system.

Applicants finally submit that Sondergaard et al actually teaches away from applicants claimed invention by disclosing pectin compositions that are pre-crosslinked before they are incorporated in food stuff in contrast to applicants invention where the ferulylated polymer is cross-linked during the preparation of the frozen aerated confection during the gas incorporation stage.

In view of the foregoing amendment and comments, applicants requests that the 102(b)/103(a) rejection over Sondergaard et al (WO 00/400098) be reconsidered and withdrawn.

Claim 19 was rejected under 35 USC § 103 (a) as being unpatentable over Sondergaard et al (WO 00/400098) in view of Weibel (US patent 5,008,254).

Weibel is silent about a process that takes a base composition including a ferulylated polymer having at most 15% oxidized ferulic acid groups and a nascent enzyme oxidation system (one that converts less than 5% of the ferulic acid residues to diferulic acid after one week at ambient temperature) and subsequently activating the oxidation enzyme and aerating this activated base composition while the ferulylated polymer is being oxidized to form the aerated frozen confection. Thus, Weibel does not remedy the shortcomings of Sondergaard et al as a prior art reference and their combination does not lead to applicants' claimed invention.

In view of the amendments and above remarks, applicants respectfully request that the 103(a) rejection of claim 19 over Sondergaard et al (WO 00/400098) in view of Weibel (US patent 5,008,254) be reconsidered and withdrawn and that the application be allowed to issue.

Double Patenting

Claim 1-19 were provisionally rejected on the grounds of nonstatutory obviousness-type double patenting over claims 1-19 of copending Application No. 10/471,482. In view of the availability of Terminal Disclaimer practice, applicants agree to file a terminal disclaimer on an indication of allowable subject matter.

If a telephone conversation would be of assistance in advancing prosecution of the subject application, applicants' undersigned agent invites the Examiner to telephone him at the number provided.

Respectfully submitted,

A handwritten signature in cursive script, reading "Michael P. Aronson".

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